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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/822,986

03/30/2001

Carl M. Ellison

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10/21/2004

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EXAMINER

PYZOCHA, MICHAEL J

ART UNIT

PAPER NUMBER

2137

DATE MAILED: 10/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/822,986	<b>Applicant(s)</b> ELLISON ET AL.	
	<b>Examiner</b> Michael Pyzocha	<b>Art Unit</b> 2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>See Attachment</u> . | 6) <input type="checkbox"/> Other: _____  |

Information Disclosure Statements (PTO-1449) Mail Dates:

12182003

07082004

04302003

09122001

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**DETAILED ACTION**

1. Claims 1-21 are pending

***Information Disclosure Statement***

2. The information disclosure statements filed 02 July 2004 and 17 December 2003 fail to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because NPL and foreign patent documents not sent by applicant. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claims 11-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claims 11-12 recite the limitation "The apparatus" in line 1. There is insufficient antecedent basis for this limitation in the claim. "The apparatus" should be "The platform".

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-5, 9-16, 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Waldin et al (U.S. 6,094,731) and further in view of Menezes et al ("Handbook of Applied Cryptography").

As per claim 1, Waldin et al discloses a platform comprising: a processor (see figure 1 #9); and a memory coupled to the processor, the memory including an isolated memory area

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containing a file checker executable by the processor, the file checker including a file analyzer to perform a scan operation on a file to produce a scanning result and a signature generator to produce a hash chain including a digital signature having the scanning result (see column 4 lines 45-62).

Waldin et al fails to disclose encrypting the hash chain to create a digital signature chain.

However Menezes et al teaches encrypting a hash value to obtain a digital signature (see pages 452-454).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use Menezes et al's method of digital signature creation for the hash chain of Waldin et al's system.

Motivation to do so would have been to allow for authentication, authorization and non-repudiation of information (see Menezes et al page 22).

As per claim 2, the modified Waldin et al and Menezes et al system discloses the scan operation by the file checker is a virus detection function (see Waldin et al column 4 lines 48-49).

As per claim 3, the modified Waldin et al and Menezes et al system discloses the incoming file is prevented from being executed if the verified digital signature chain indicated an

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unacceptable file integrity (see Waldin et al column 6 lines 18-65).

As per claim 4, the modified Waldin et al and Menezes et al system discloses the incoming file is accessed if the verified digital signature chain indicates acceptable file integrity (see Waldin et al column 6 lines 18-65).

As per claim 5, the modified Waldin et al and Menezes et al system discloses a first control unit coupled to both the processor and the memory (see Waldin et al column 4 lines 45-62).

As per claim 9, the modified Waldin et al and Menezes et al system discloses the file analyzer is a virus detector, an intrusion detector, or a file integrity checker (see column 4 lines 48-49).

As per claim 10, the modified Waldin et al and Menezes et al system discloses the signature generator comprises an encryptor to encrypt the scanning result using a signature key (see Menezes et al pages 452-454); and a time stamper coupled to the encryptor to timestamp the encrypted result using a time indicator, the time stamped encrypted result corresponds to the digital signature (see Waldin et al column 4 line 63 through column 5 line 50).

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As per claim 11, the modified Waldin et al and Menezes et al system discloses the time indicator is one of a calendar time and a version identifier of the scanner (see Waldin et al column 4 lines 63-67).

As per claim 12, the modified Waldin et al and Menezes et al system discloses the file is code (see Waldin et al column 3 lines 5-20).

As per claims 13 and 19, the modified Waldin et al and Menezes et al system discloses a method and program comprising: determining whether a digital signature chain accompanies a file to be accessed (see Waldin et al column 7 lines 22-28 where it is inherent that if the recipient and originating computer are the same it must determine if the file has a digital signature chain); and verifying the digital signature chain of the file by determining whether the file has an acceptable file integrity, and whether each signatory providing the digital signature chain is authorized (see column 6 lines 18-65).

As per claims 14 and 20, the modified Waldin et al and Menezes et al system discloses precluding access to the file if the file has unacceptable file integrity (see Waldin et al column 6 lines 18-65).

As per claims 15 and 21, the modified Waldin et al and Menezes et al system discloses precluding access to the file if



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at least one signatory of the digital signature chain is unauthorized (see Waldin et al column 6 lines 18-65).

As per claim 16, the modified Waldin et al and Menezes et al system discloses entering into isolated execution mode if the file does not have a corresponding digital signature chain; analyzing an integrity of the file; and issuing the digital signature chain if the file has an acceptable file integrity (see Waldin et al column 6 lines 18-65).

As per claim 18, the modified Waldin et al and Menezes et al system discloses opening the file if the verified digital signature chain indicates acceptable file integrity (see Waldin et al column 6 lines 18-65); and refusing to open the if the verified digital signature chain indicates unacceptable file integrity (see Waldin et al column 4 lines 45-62).

8. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the modified Waldin et al and Menezes et al system as applied to claim 5 above, and further in view of Swaney et al (U.S. 4,488,232).

As per claim 6, the modified Waldin et al and Menezes et al system fails to disclose a second control unit coupled to the first control unit and a token bus interface.

However Swaney et al teaches a token bus interface (see column 8 lines 9-27 where it is inherent the system with a token

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bus interface must have a second control unit coupled with the first control unit to allow for the output of the file via the token bus interface).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use Swaney et al's token bus interface within the modified system of Waldin et al and Menezes et al.

Motivation to do so would have been to allow for the systems to use a token bus to transfer the data (see Swaney et al column 1 lines 10-14).

As per claim 7, the modified Waldin et al, Menezes et al, and Swaney et al system discloses non-volatile memory coupled to the second control unit (see Swaney et al column 5 lines 1-13).

As per claim 8, the modified Waldin et al, Menezes et al, and Swaney et al system discloses input/output devices coupled to the second control unit (see column 8 lines 9-27).

9. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over the modified Waldin et al and Menezes et al system as applied to claim 16 above, and further in view of Hewlett-Packard Co. (EP 1030237).

As per claim 17, the modified Waldin et al and Menezes et al system fails to disclose issuing the digital signature chain with an indication that the file integrity is unacceptable if

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the integrity of the file is analyzed and determined to be unacceptable.

However, Hewlett-Packard Co. discloses such an indication (see column 6 lines 33-36).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use Hewlett-Packard Co.'s indication in the modified Waldin et al and Menezes et al system.

Motivation to do so would have been to determine when a file is being access (see Hewlett-Packard Co column 7 lines 1-8).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Pyzocha whose telephone number is (571) 272-3875. The examiner can normally be reached on 7:00am - 4:30pm first Fridays of the bi-week off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571) 272-3868. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJP

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